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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,905

09/29/2003

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040447-0252

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22428 7590 11/21/2011
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ART UNIT

PAPER NUMBER

2455

MAIL DATE

DELIVERY MODE

11/21/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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1 RECORD OF ORAL HEARING
2
3 UNITED STATES PATENT AND TRADEMARK OFFICE
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6 BEFORE THE BOARD OF PATENT APPEALS
7 AND INTERFERENCES
8
9

10 *Ex parte* NAOKI HASHIMOTO and YOSHIKAZU KOBAYASHI
11
12

13 Appeal No. 2010-004185
14 Application No. 10/671,905
15 Technology Center 2400
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18 Oral Hearing Held: October 18, 2011
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20

21 Before THOMAS S. HAHN, ELENI MANTIS MERCADER, and
22 CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.
23

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35 The above-entitled matter came on for hearing on Tuesday, October 18,
36 2011, commencing at 2:00 p.m., at the U.S. Patent and Trademark Office,
37 600 Dulany Street, Alexandria, Virginia, before Deborah Rinaldo, Notary
38 Public.
39

P R O C E E D I N G S

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JUDGE HAHN: Good afternoon, counsel. You'll have 20 minutes.

MR. ARTICOLA: This case deals with a packet transmission system and a packet reception system, two sets of claims. So I'll first deal with the packet transmission system claims, the group there.

One feature in claim 1 is a sorting means for sorting packets according to whether the packet is to be transmitted as unicast form which basically means to one destination or in simultaneous packet form by multicast or broadcast. So in that case you are transmitting to multiple people, say, the Board of Appeals.

Additionally, if the packet, I'll paraphrase a little here, the packet is to be transmitted in a simultaneous packet form, then you assign a packet ID to the packets and you transmit those packets a plurality of times even if the packet transmission system does not receive a retransmission request from the reception side. And there's a few other features but those really aren't too important.

And the final office action and also the Examiner's answer rejected that claim based on a combination of Graham, G-R-A-H-A-M, and Wilford, W-I-L-F-O-R-D.

And Graham deals with a packet metering system where say you get online and as you are utilizing this service, every so often a packet comes out to a census which each time it receives a packet, it basically tells you how long you've used the service, how much time may be free, how much time is to be billed. So it accumulates, and that way you can be billed properly at the end of

1 your time using the -- say you are in an airport and you are using Internet
2 service there.

3 And but also Graham teaches a fact that you can send out redundant
4 packets. So in case some get lost, there's a redundancy.

5 And the office actions also admitted that Graham does not teach or does not
6 recite sorting a packet according to whether the packet should be transmitted in
7 a unicast form or in a simultaneous packet form by multicast or broadcast. So
8 in that case the Examiner utilized the Wilford reference for teaching that
9 feature.

10 And also it provided the motivation being that since Wilford can
11 improve -- it indicates that Wilford indicates that invention design provides for
12 low latency and high speed packet routing, and that would be good things to
13 use for Graham.

14 In our response to that in the Appeal Brief and also the Reply Brief, we
15 disagree that you would be motivated or a person of ordinary skill in the art
16 would be motivated to combine Wilford with Graham, because while Wilford
17 does deal with described low latency high speed packet router, it's basically a
18 router that routes packets from one place to another place within a network or
19 different networks.

20 It does so by having sorting packets based on whether they are multicast
21 packets or unicast packets. If it's a multicast packet, it puts it into a multicast
22 queue. If it's a unicast packet, it goes to a unicast queue.

23 And then from that, the multicast packets are basically duplicated and
24 turned into, in effect, unicast packets and it sends out all those packets to

1 so-called multicast turned into unicast packets and the unicast packets
2 themselves from the FIFOs to whatever destination they are directed to.
3 So Wilford deals with minimizing packet delay by sorting multicast and
4 unicast packets into separate FIFOs, but the purpose of Wilford is that there is
5 multicast and unicast packets. So if there weren't, you wouldn't have the need
6 to have two separate FIFOs and have to sort them.

7 Graham, which is a metering system which keeps track of how much
8 time you are using the user's computer, sends out packets every now and then
9 or every so often to the census and not to the entire world. So there is no
10 multicast packets being transmitted in Wilford. Just unicast packets.
11 So one would not be motivated to combine Wilford to Graham because
12 Graham doesn't use two types of packets. And secondly, it would just add to
13 an extra step sorting that wouldn't make any sense because Graham's packets
14 are all unicast.

15 In the Examiner's answer, it mentioned that Graham does teach
16 about -- it's not just limited. You can use different types of protocols, but that
17 doesn't change the fact that Graham is a single type of packet transmission
18 system, basically unicast and the fact that maybe you can use a protocol that
19 changes the information in the packet in the header.

20 That perhaps is okay, but that doesn't change the fact that the packet is
21 still going to one and only one location where it's being. All those metered
22 packets are being accumulated, so you can determine how much to charge the
23 user when the user's session ends.

1 So that's basically our argument, which is that the combination of
2 Wilford and Graham would not be done by a person of ordinary skill in the art,
3 and since Graham is lacking that teaching, claim 1, I believe, is patentable.

4 JUDGE MANTIS MERCADER: Counselor, can I ask a question. The
5 Examiner relied on Graham for the transmission of packages that had
6 identifications on them regardless of what they are. And then he introduced
7 the secondary reference of Wilford for the teaching of the type of packages,
8 that it could be unicast and multicast that are being identified.

9 MR. ARTICOLA: Right, but the person of ordinary skill, when looking
10 at Graham, would say Graham is directed to only one type of packets going
11 out.

12 JUDGE MANTIS MERCADER: Right, but it's a 103. If all the
13 elements were in Graham, it would be a 102.

14 MR. ARTICOLA: I understand. But a person of ordinary skill would
15 look at Graham and say this deals with a unique type of system that transmits
16 only one type of packet. Wilford teaches different types of packets and sorting
17 them.

18 So one of ordinary skill would say that's two different kinds of systems,
19 two different kinds of reasons. Wilford's reason for low latency, which is to
20 sort packets according to type of packets, would not make any sense to
21 Graham.

22 JUDGE MANTIS MERCADER: Correct me if I'm wrong, I think the
23 Examiner just relied on column 2 for the teaching of sending packages
24 multiple times and identifying those packages with an identification number.

1 So when they are received and there are multiple of them, they can delete or
2 sort the ones that are duplicates.

3 So why wouldn't one skilled in the art say, okay, if you can do this with
4 whatever type of package this is, why not have unicast and multicast also that
5 are being identified, being transmitted and then discarded if they are duplicates
6 of them at the receiving line?

7 MR. ARTICOLA: So you are saying it's Wilford in view of Graham
8 instead of Graham in view of Wilford?

9 JUDGE MANTIS MERCADER: No, Graham is still the primary
10 reference. It's sending packages that are being identified.

11 MR. ARTICOLA: Right, and sending duplicates of those packets.

12 JUDGE MANTIS MERCADER: Right. So one skilled in the art would
13 say, okay, instead of doing just one type of package, whatever that type is, let's
14 add two types of packages that are being identified.

15 MR. ARTICOLA: Well, that's true. Wilford still deals with two types
16 of packets, multicast and unicast. But Graham's system is only directed to
17 sending packets to one location.

18 So for someone to say I want to modify Graham to make it faster speed,
19 low latency, as Wilford teaches, you would still have to say why would I ever
20 want to use different types of packets than Graham?

21 And the answer is I don't see any reason why you would because the
22 packets are not going to the world. They are going to the census and only to
23 the census. And therefore, to change the packets to have some go unicast and
24 some go multicast would just be totally contrary to what Graham is doing.

1 Graham is one where I want to send packets to my neighbor who can then say,
2 okay, I got the information. It's going to a particular location that keeps track
3 of those packets.

4 So to basically say I'm going to slap on Wilford with its useful
5 teachings, it has to be a reason to do it to Graham. And Graham's system is
6 really just unicast packets going periodically, say, every minute or so. To say,
7 well, the first packet should be unicast, the next packet should be multicast, it
8 just doesn't make any sense why you would do that.

9 JUDGE MANTIS MERCADER: But it's not the whole reference we're
10 relying on. The Examiner is just relying on the sole teaching that you can send
11 redundant packages. And once they are received, if they are redundant
12 because of that identification, you can delete the ones that you don't need.

13 MR. ARTICOLA: But are we combining references for combining sake
14 then? Because we have to have some reason why you would combine the two,
15 and I think you are saying we can just take part of Wilford, part of Graham and
16 put them together. That's not really the test. The test is you have to give a
17 reason why you would combine.

18 JUDGE MANTIS MERCADER: Why don't we switch it around. Let's
19 say Wilford is the primary reference and you send multiple packages, unicast
20 and multicast, and now you modify with Graham in saying, you know, we lose
21 because of noise these packages, let's add those identifications to the unicast
22 different to multicast. So when there is redundancy, we can delete the ones
23 that are redundant.

24 MR. ARTICOLA: Again, Wilford deals with a router. So it's basically
25 looking at routing packets from one location to another location and looking at

1 those packets being of different types. So to say we can look at Graham,
2 Graham again is just a simple one type of system.

3 Now, if Graham somehow said we have different types of packets, some
4 multicast and some unicast, and we're going to duplicate them all, then I agree
5 with you.

6 But the fact that Graham is only transmitting one type of packet
7 duplicate times, I think a person of ordinary skill, even if you flip them around,
8 would not say, I can modify Wilford to use Graham's redundancy system
9 because Graham's redundancy system only makes sense for going to one
10 location because it's directed to a metering system that goes to basically a
11 secure location, so to speak, that's keeping track of the packets received to
12 determine how much time you've stopped and how much you have to be
13 charged for.

14 I think that's probably my -- what I would say because Graham, again, is
15 different in that it's a single packet system. So Wilford's complicated
16 system -- it just wouldn't make sense to utilize Graham, which is sort of a
17 different kind of process.

18 JUDGE MANTIS MERCADER: Okay. Thank you.

19 MR. ARTICOLA: The next set of claims are the reception side. And
20 the reception side kind of works the opposite of the transmission side. We
21 have a receiver which receives a packet throughout times without a
22 retransmission request. So in this case it's almost the opposite of the
23 transmission side.

24 So the specification discloses that even when a packet has been
25 previously received by the receiving side, the reception side may still be able

1 to receive one or more duplicates of that same packet without sending a
2 retransmission request. Because as we described with claim 1, the transmitter
3 is sending out duplicates of the multicast or broadcast packets.

4 And in this rejection, it's a 102 based on Daudelin, and in that case you
5 have a transmitter which basically transmits a packet and puts that packet in a
6 sort of kind of quasi queue where it's going to a pending retry state, where it
7 says, okay, I'm going to wait, start a timer and I'll wait to see if I receive an
8 acknowledgment from the reception side that it received the packet okay.

9 And if the timer times out before it receives that acknowledgment from
10 the reception site, it just goes ahead and retransmits that packet again. And if
11 it does receive the acknowledgment from the reception side that says, okay,
12 pull it out of the queue. If it got sent okay, I'll just throw that packet away and
13 move on to the next packet.

14 And here the issue is the Examiner's answer in the final office action
15 treats that as saying, well, in Daudelin it's sending out a packet and there is
16 nothing coming out from a reception side. The reception side is not sending a
17 retransmission request. Therefore, it meets the features recited in claim 12 of
18 that element.

19 And our argument in that one was that in Daudelin the timer at the
20 transmission side corresponds to a retransmission request. Even though it's not
21 coming from the reception side it's something that forces the retransmission of
22 the packet. And so without the timer timing out, then you would not
23 retransmit the packet.

24 And the Examiner said, no, that's something on the transmit side and
25 your retransmission request is on the reception side. But claim 12 doesn't say

1 at the receiver. Our claim 12 is, well, that could be either on the receiver or
2 the transmitter side.

3 So it came down to that and basically both sides are -- we have our
4 interpretation, the Examiner has his interpretation. Basically we feel that even
5 at the transmitter side, the fact that the timer times out means, in fact, the
6 transmitter is being told to retransmit the packet. So that corresponds to a
7 retransmission request even though it's done at the transmitting side.

8 JUDGE MANTIS MERCADER: According to your specification
9 where does the retransmission request occur?

10 MR. ARTICOLA: Well, in the embodiment described, in the
11 application it does talk about the reception -- the receiver. But in terms of
12 claim 12, we don't want to be limited to just at the receiver. So in the
13 specification it does mention the receiver is the one who has to send the
14 request.

15 JUDGE MANTIS MERCADER: Is there another embodiment with a
16 transmitter?

17 MR. ARTICOLA: No, not that I could find in the specification.

18 JUDGE MANTIS MERCADER: In your specification?

19 MR. ARTICOLA: Right. It's just a claim in this case does not use
20 those words. So our argument was, well, that should not be so limited to that
21 disclosed embodiment.

22 JUDGE MANTIS MERCADER: But you don't have disclosure for that
23 in the transmittal.

24 MR. ARTICOLA: Not for that exact embodiment for a transmitter.
25 That's true.

1 JUDGE MANTIS MERCADER: So then the Examiner interpreted it
2 based on your specification, that is at the receiver side.

3 MR. ARTICOLA: Yes.

4 JUDGE MANTIS MERCADER: Thank you.

5 MR. ARTICOLA: Any more questions?

6 JUDGE HAHN: No more questions.

7 MR. ARTICOLA: Thank you all and have a good day.

8 (Whereupon, the proceedings at 2:18 p.m., were concluded.)

9

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